CW Wednesday 19 Aug 2026

sk 1: Write your own algorithm

A. Write your own linear algorithm for getting ready for school in five steps?

1. Wake up and get out of bed.
2. Brush teeth and wash face.
3. Get dressed in school uniform
4. Eat breakfast
5. Pack school bag and leave for school

B. Algorithm Writing

Write a simple algorithm for baking a cake. List the steps in order:

1. Mix the cake ingredients together in a bowl
2. Pour the mixture into a cake pan
3. put the the pan in oven and bake it
4. Take the cake out and let it cool down

Task 2: Create Order from Disorder

A. Given below are some simple algorithms. Their steps are OUT OF ORDER. Yo is to number the steps from 1,2,3 & 4 in the proper order.

1. Algorithm for Starting a Computer Assignment

- [2] Log in to the computer
- [4] Finish the assignment
- [3] Open the assignment
- [1] Turn on the computer

2. Algorithm for Lunchtime Routine

- [2] Open lunchbox
- [4] Eat sandwich
- [3] Take out sandwich
- [1] Sit down at lunch tabl

3. Algorithm for Pouring a Drink

- [3] Pour juice into the cup
- [2] Open the juice bottle
- [4] Drink the juice
- [1] Get a cup from the cupboard

B. Fill in the blanks with the appropriate words from the box below. Not all word will be used.

algorithm	loop	steps	repeat	order	indefinite	continuously

1. A/an algorithm is a list of instructions that tells you how to do someth step by step.
2. A loop is when you do the same thing over and over again.
3. If instructions are out of order the task will not get done correctly.
4. The forever loop runs continuously without stopping.
5. You can use a loop when you need to repeat an action many times.
6. Another name for a forever loop is an indefinite loop.

Good!

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Task 3: Q & A – Algorithms & Loops

1. What is the difference between a linear algorithm and a looping algorithm

A linear algorithm is a list of steps you follow one after another, in order, from start to finish - no repeat, no choice.

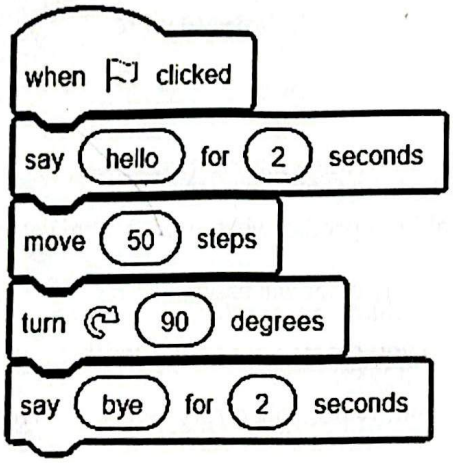
2. Write any 3 daily life activities that use algorithms.

Brushing your teeth.

Making a cup of tea.

Getting ready for school.

3. Look at the Scratch code below. Is it a Linear Algorithm or does it have loops?



It is linera algorithm because it follow the step one by one and does not repeat any instruction.

looping algorithm repeat one or more steps again and again until the task is finished or stopped

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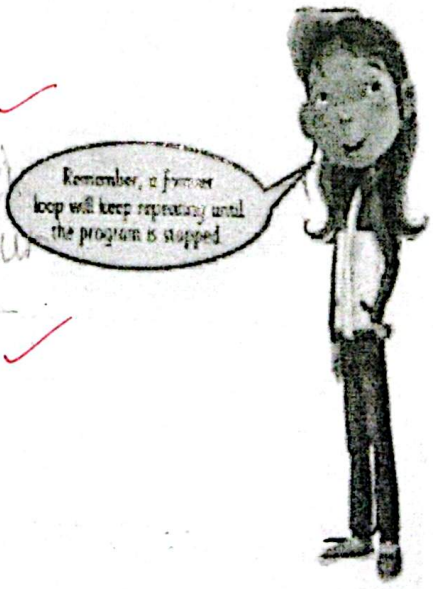
4. Write answers of the following questions:

a. What is the difference between a repeat loop and a Forever Loop?

Repeat Loop	Forever Loop
Repeat loop repeat an action set number of time and has a clear stopping point Used when you know how many times you want to repeat an action E-g Turn 10 time	forever loop repeat an action without stopping condition unless forced Used when you don't know how to stop Example - keep blinding forever

b. What is an indefinite loop?

An indefinite loop is a type of loop that repeats an action an unknown number of times. It continue a certain condition is met Example. keep calling your friend until they answer you don't know how many



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Task 4: Match the Terms – Find the Stopping Conditions

Draw a line to match each **action** with the **correct stopping condition** for the ac

Actions	Conditions
1. Keep brushing your teeth	until your friend answers
2. Keep calling your friend	until you reach the park
3. Keep playing the game	until the timer goes off
4. Keep walking	until your teeth are clean

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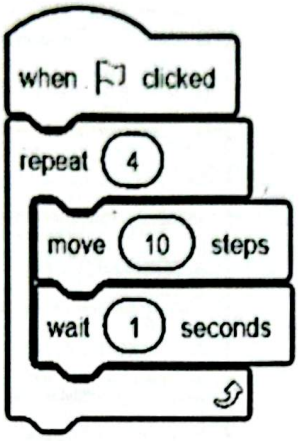
sk 5: Understand the Code

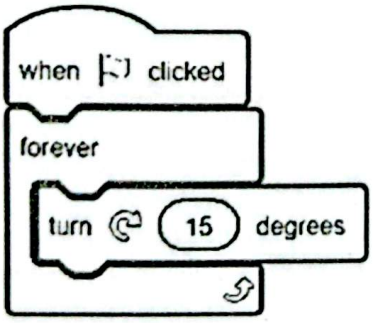
. Look at this Scratch code:



low many steps will the sprite take?

The sprite will move forward 10 and repeat that 4 times. It pauses for 1 second after each move so total 40 steps over 4 second

2. Look at this Scratch code:



What will happen when the green flag is clicked?

The sprite was a forever loop so the sprite keeps turning 15 degrees over and over. There is no stopping condition so sprite will spin in circles and lessly until the program is manually stopped

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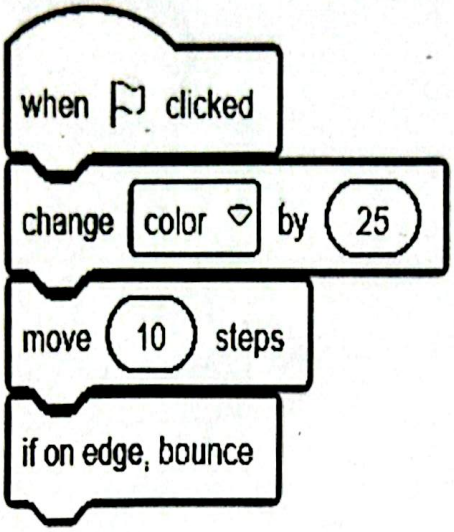
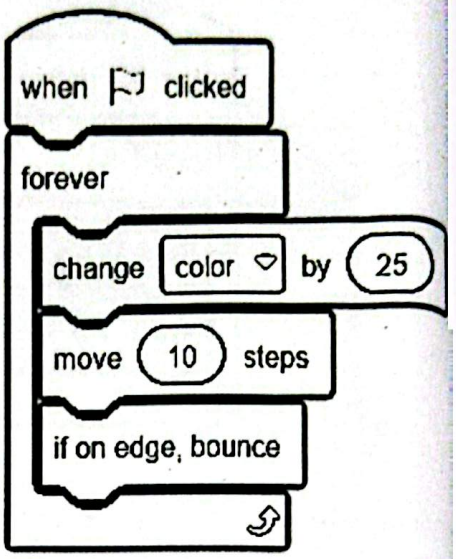
3. Look at these two different programs and answer the questions

Program 1



Program 2



a. What extra code is there in **Program 2?**

The extra code is a forever block.

b. What does the extra code do in **Program 2?**

The forever block makes the sprite change it's colour effect each time the loop runs. So each time the the sprite

c. What will each program do when the **green flag** is clicked?
Read the given statements and write the correct Program Number (1 or 2).

Program 2 : When green flag is clicked, the sprite will change color effect by and move on stage, bounce when it hits an edge. This will go on continuously.

Program 1 : When green flag is clicked, the sprite will change color effect by 2 move 10 steps forward and bounce when it hits an edge. This program will run on only.

moves 10 steps. It visually change colour

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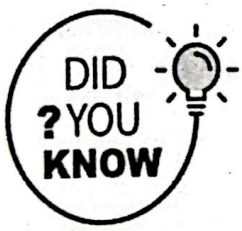
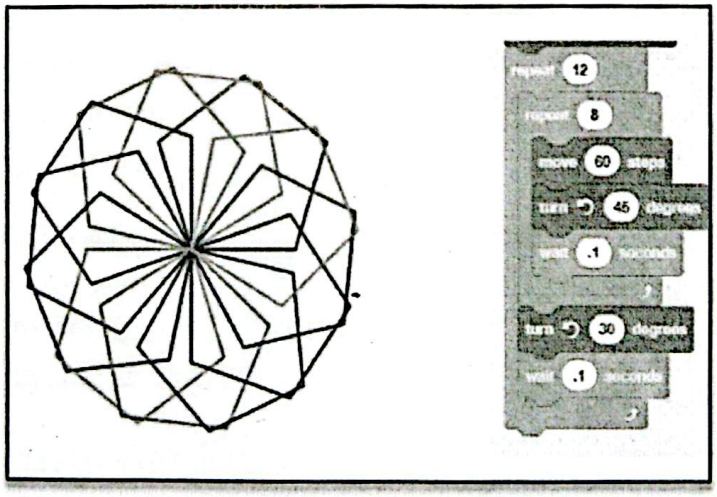
Task 6: Match the columns

Draw a line to match each **term** with the **correct sentence**

Column A	Column B
Algorithm	Step-by-step instructions to do a task
Repeat loop	Repeats a fixed number of times
Forever loop	Repeats indefinitely
Repeat Until loop	Repeats until a condition becomes true



You can make beautiful patterns in Scratch using Repeat Loops!



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Task 9: Direct the Robot

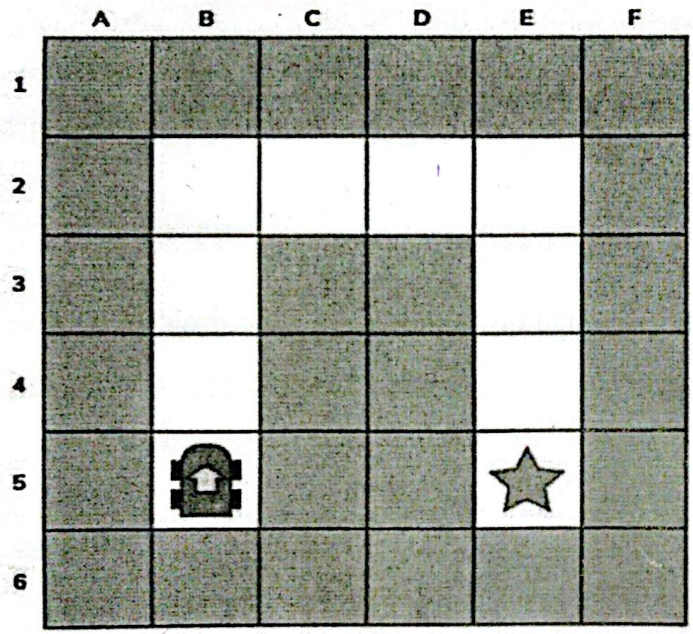
Write an algorithm to direct the robot in square **B5** to the star in square **E5**, follo the white road.

Use commands like these to write your instructions:

Forward 3 (to move forward 3 squares)

Turn right

When moving, you should not count the square the robot is currently on. For example, the command **'Forward 3'** will move the robot to square **B2.**



Algorithm:

1. Move 3 steps forward (from Robot moves B5-
2. Turn right (Now facing right →)
3. Move 3 steps forward (Robot moves from B2-E
4. Turn right (Now facing down ↓)
5. Move 3 steps forward (Robot moves from E2

→ E5

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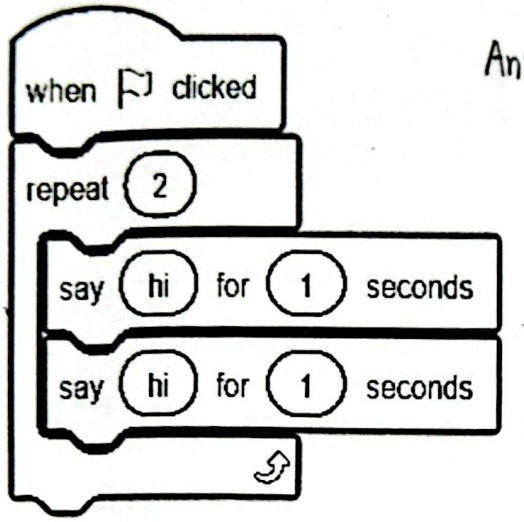
Task 10: Debug the code

Look at the code below. It's supposed to make the sprite say "Hi!" 4 times, but something is wrong. Fix it! Also try out this task yourself on Scratch.

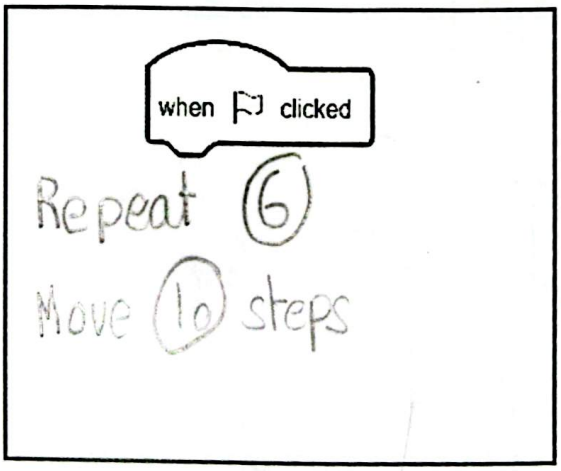


Corrected version:

Ans

When Green flag clicked
repeat 4
Say 1 for 1 second

Write a Scratch script that makes a sprite move 10 steps, 6 times. Plan out your script below. What will you choose to add?



ask 12: Test Your Knowledge

ircle the correct answer:

1. What does a **count-controlled loop** do?

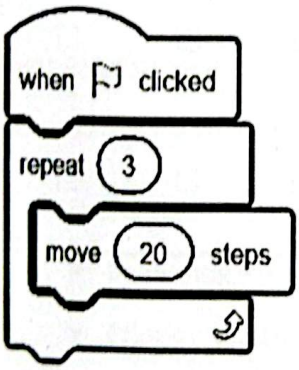
   a) Stops the code
   b) Repeats forever
   c) Repeats a fixed number of times
   d) Makes the sprite disappear.

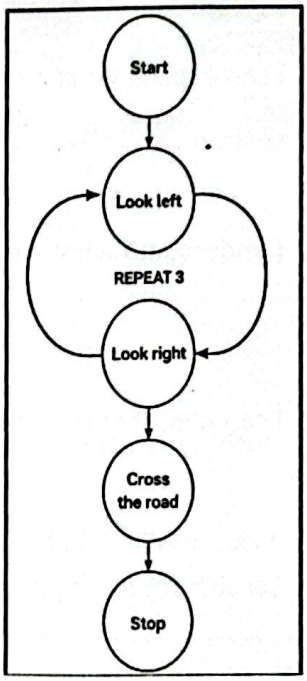
2. What is the name of the count-controlled loop block in Scratch?

   a) forever
   b) repeat
   c) wait
   d) if

3. What will this code do?

   a) Move forever
   b) Move 3 steps
   c) Move 60 steps
   d) Say "Hello!"





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ask 15: Think and Answer

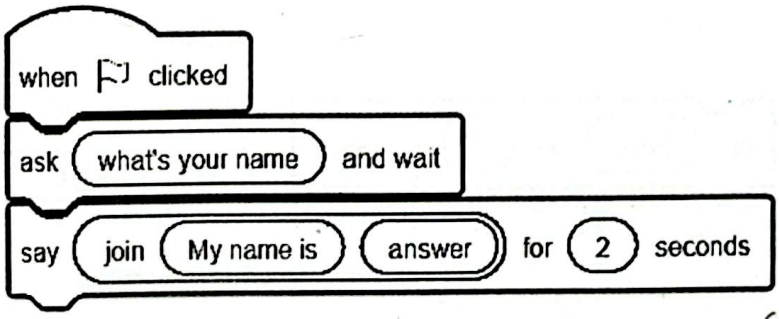
1. What is the difference between input and output?

Input is information or data that we give to computer. It tells the computer what to do. Output is information that we recieve from the computer

2. Name one Scratch block that gives output:

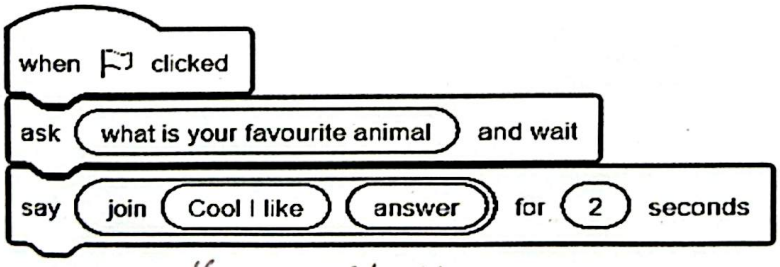
Say (Hello!) for (2) second

3. What will this code do?



The ask block take input from user. The "say join" block combines the text "My name is" with the user name. The message will apper for 2 second

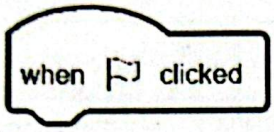
4. What will the sprite will say if you type "panda"?



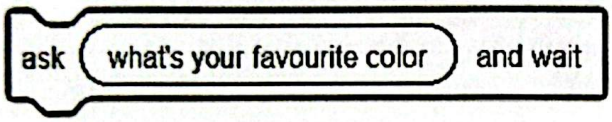
If you type "panda", the sprite will say: "Cool" I like panda" for 2 seconds. They join block combines the text with answer and sprite show that message.

Task 16: Identify the Block Type

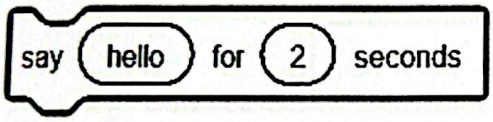
Identify each Scratch block shown below:



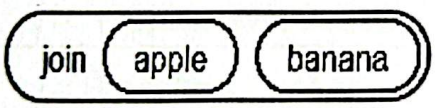
Event block



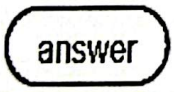
Sensing block



look block



Operations



Sensing blocks

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